## **ASX Announcement**

Tuesday 21st April 2020





# **MARCH 2020 QUARTERLY ACTIVITIES REPORT**

## **Key points**

- Strong financial position with A\$7.3 million cash at quarter's end plus 31% ownership of ASX-listed explorer Todd River Resources
- New gold trend east of Aarnivalkea (Finland) confirmed with infill base of till drilling but diamond drilling deferred due to Covid-19 situation
- Diamond drilling at Gwardar (Polar Bear, Western Australia) intersects more nickel sulphides and extends prospective lava channel down plunge
- Reconnaissance exploration commenced on recently granted Fraser Range ground (Western Australia)
- Two large areas staked on the west coast of Western Australia covering magmatic nickel-copper-PGE targets

## CORPORATE

As reported in the Company's ASX announcements of 18<sup>th</sup> March and 3<sup>rd</sup> April 2020, the Covid-19 pandemic has strongly influenced the Company's activities during the March quarter, in terms of constraining its operations but also in affording opportunities to fast track Company's strategy of pivoting its exploration focus onto Australia and lessening its reliance on its overseas exploration projects.

In order to pre-empt the possibility of employees and contractors being stranded in Finland as a result of border closures and flight cancellations, the Company decided to repatriate all personnel to their respective countries of domicile and defer its planned diamond drilling program on the recently identified new gold trend to the east of its Aarnivalkea gold prospect until normal conditions resume.

In accord with government social distancing requirements, the Company has also temporarily closed its Perth office, and in expectation that this pandemic may last for some time the directors and employees of the Company have all agreed to a 30-40% cut in salaries, with the aim of conserving its balance sheet so that the Company is optimally funded once normal conditions resume.

Given the ongoing ban on international travel, coupled with the risk to personnel operating in the US, the deteriorating USD/AUD exchange rate and the impending earn-in obligations with its Ecru joint venture in Nevada, the Company also decided to withdraw from this project during the quarter.



Although the Finnish exploration has been deferred, the Company intends to continue with its program once possible. Unlike the situation in Nevada, planned exploration in Finland is fully funded in EUR currency, so is not impacted by the deteriorating EUR/AUD exchange rate.

These changes, made in response to the Covid-19 pandemic, have coincided with an intended shift in strategy to focus more on Australia and to be less reliant on the Company's overseas projects, enabled by the granting of new exploration licenses in the Fraser Range, and the identification and pegging of new nickel-copper-PGE targets in Western Australia, where our personnel are still able to travel and undertake important, but low cost, preliminary exploration, to have them ready to "go" once normal conditions resume.

#### **Finance**

A total of A\$1.3 million was spent during the quarter, comprising A\$0.9 million exploration and evaluation costs, A\$0.2 million corporate costs, business development costs, overheads and payments for fixed assets, and A\$0.2 million staff costs.

At the end of the March quarter cash totaled A\$7.3 million. Planned expenditure for the next quarter ended 30 June 2020 is anticipated to be approximately A\$0.6 million.

## **Capital structure**

No shares were issued during the quarter.

The total issued capital comprises 247,915,179 ordinary shares and 41.8 million unlisted options, which if exercised, would represent a capital injection of A\$14.2 million to the Company.

## **EXPLORATION**

#### Central Lapland Greenstone Belt, Finland (S2 100%)

S2 has mineral rights covering approximately 684 square kilometres of ground in the Central Lapland Greenstone Belt of Finland, a region that contains significant shear zone hosted gold deposits, such as Agnico Eagle's 8Moz Kittila gold mine, and magmatic copper-nickel-PGM deposits, which include Boliden's Kevitsa mine and Anglo American's world class Sakatti deposit.

During the quarter the Company identified a new gold mineralised trend in base of till (BOT) drilling to the east of its 100% owned Aarnivalkea gold prospect in northern Finland (see Figure 1). This BOT drilling was undertaken to test beneath an ionic leach gold anomaly in lieu of planned extensional diamond drilling at Aarnivalkea, which could not proceed due to unusually warm conditions in the arctic preventing the ground from freezing and restricting rig access in swampy areas.

It identified a 1.2 kilometre long north-south striking zone of strong gold, arsenic, antimony and copper anomalism (see Figures 2 and 3) associated with quartz-arsenopyrite veined and strongly sheared and sericite-silica-carbonate-sulphide altered greenstones (see Figure 4). Numerous samples grade greater than 0.5 g/t gold, with a peak value of 4.3 g/t gold, and these have associated anomalous arsenic, antinomy and copper pathfinder elements.

It is likely that the southern extension of this corridor has been terminated by a late fault and displaced 1.5 kilometres to the northeast, where another line of reconnaissance BOT drilling has intersected gossanous quartz assaying 10.7g/t gold together with a similar suite of pathfinder elements (see Figures 2 and 3).



Planned diamond drilling had to be postponed the day before the rig was due to arrive as a result of necessary Covid-19 countermeasures as described in the Corporate section of this report. The Company intends to drill this prospect as soon as the resumption of normal health and travel conditions permit.

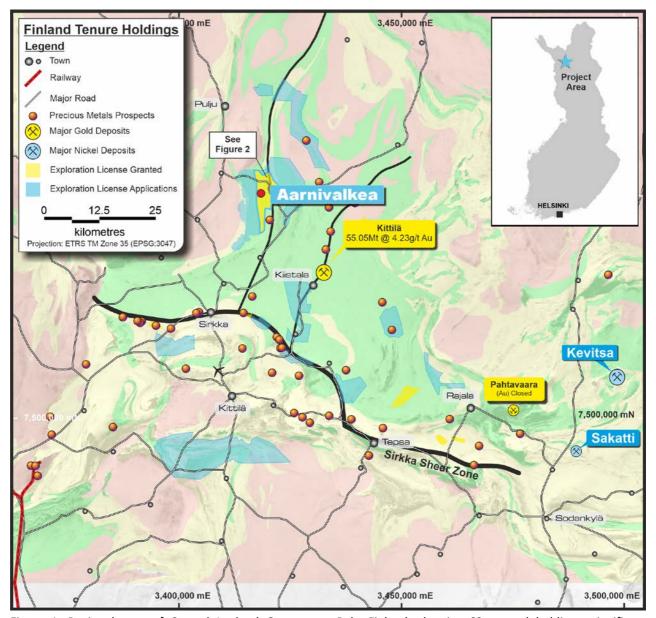


Figure 1. Regional map of Central Lapland Greenstone Belt, Finland, showing S2 ground holdings, significant mines/deposits on simplified geology, and the location of the Aarnivalkea gold prospect.



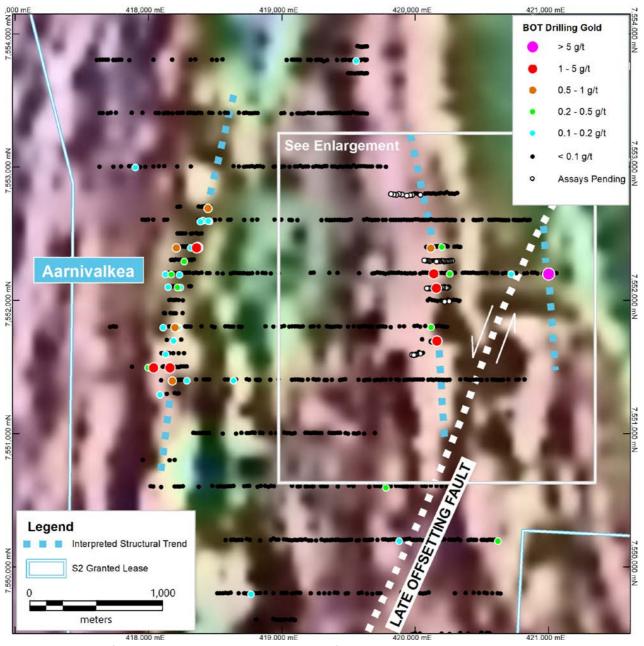


Figure 2. Location of new gold anomalous trend to the east of the Aarnivalkea gold prospect, showing the BOT drilling at both localities, colour coded for comparison of gold values in BOT holes.



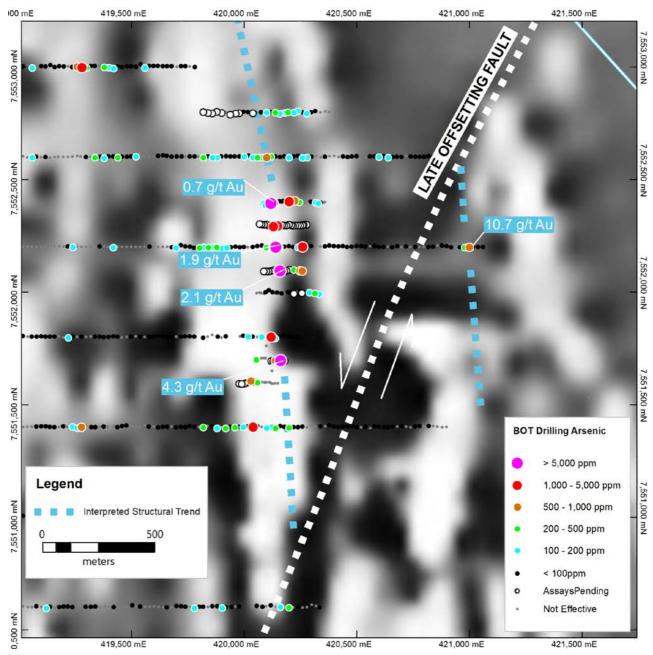


Figure 3. Detailed view of new BOT drilling east of Aarnivalkea showing a N-S trend with strongly anomalous arsenic values (coloured dots) accompanied by strongly anomalous gold (blue labels). A late NNE striking fault is interpreted to offset this trend approximately 1.5km to the northeast, where further anomalous arsenic and gold has been intersected. High gold values (labels) coincide with strongest arsenic anomalism (>0.5% As).



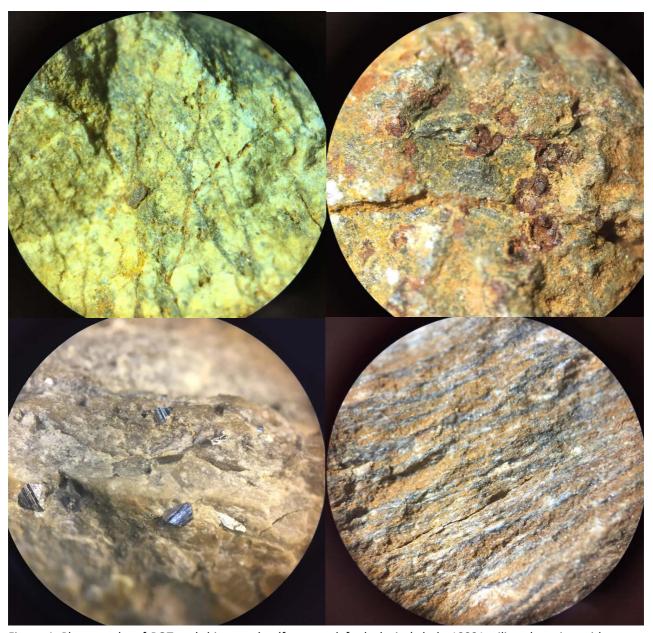


Figure 4. Photographs of BOT rockchip samples (from top left clockwise): hole 18881, silica alteration with quartz microveining and iron oxides after pyrite, grading 2.1g/t gold; hole 18901, silica alteration with iron oxide pitting after sulphides, grading 4.3g/t gold; hole 18901, strongly sheared and quartz-sericite-dolomite altered rock, grading 4.3g/t gold; and hole 18668, intense silica-sericite alteration with euhedral arsenopyrite, grading 0.3g/t gold.



### Polar Bear nickel project (S2 100% nickel rights)

S2's holds the nickel rights over an area of 510 square kilometres to the southeast of the Widgiemooltha and Kambalda nickel sulphide trends. S2 retained these rights when it sold the Polar Bear project (comprising the Polar Bear and Norcott projects and the Eundynie Joint Venture) to Higginsville Gold Operations (now owned by RNC). The nickel rights include the Halls Knoll, Taipan and Gwardar nickel prospects.

Two diamond holes drilled to test the down plunge continuity of nickel mineralisation the Gwardar prospect succeeded in extending the mineralised lava channel a further 100 metres down plunge.

Hole SPBD0364 intersected numerous 1-5 metre wide intervals of disseminated nickel sulphide mineralisation and 1.63 metres of massive sulphide grading 2.22% nickel on the basal contact of the lowermost lava flow (see S2 ASX announcement of 18<sup>th</sup> March 2020), extending the mineralised zone 100 metres down plunge from previous hole SPBD360, which intersected a broad disseminated sulphide zone (17.83 metres @ 0.69% nickel) and several narrower, higher grade intervals including 0.75 metres @ 2.41% nickel, 0.68 metres @ 3.31% nickel and 3.33 metres @ 1.38% nickel (see S2 ASX announcement of 22<sup>nd</sup> July 2019).

Subsequent to the end of the quarter, assay results were received from the second hole, SPBD0365, drilled 100 metres north along strike from SPBD0364. This hole intersected numerous zones of disseminated nickel sulphides (see Figure 5), including:

- **24.68m @ 0.88% nickel** from 241.0 metres, including **8.06 metres @ 1.33% nickel** from 241.94 metres, associated with a hangingwall cumulate ultramafic flow above the main basal flow unit,
- 6.00 metres @ 0.43% nickel from 292.00 metres
- 7.82 metres @ 0.61% nickel from 306.00 metres on the basal contact of the ultramafic package,
   and
- 3.13 metres @ 0.58% nickel from 348.87 metres within remobilised stringer mineralisation in the footwall rocks

Of particular interest is that the high tenor disseminated mineralisation in the second hole, SPBD0365, is primarily located within a hangingwall flow, indicating the presence of multiple mineralised horizons at Gwardar (see Figure 5).

Drilling has now defined a 100 metre thick nickel sulphide mineralised lava channel comprising multiple mineralised flows over a strike width of 150 metres and at least 400 metres plunge extent, with the channel remaining open down plunge from deepest drilling. Such a large volume of mineralised ultramafic attests to the fertility and potential of this area, which is the strike continuation of the Widgiemooltha ultramafic package that hosts Mincor's Cassini nickel discovery further to the north.



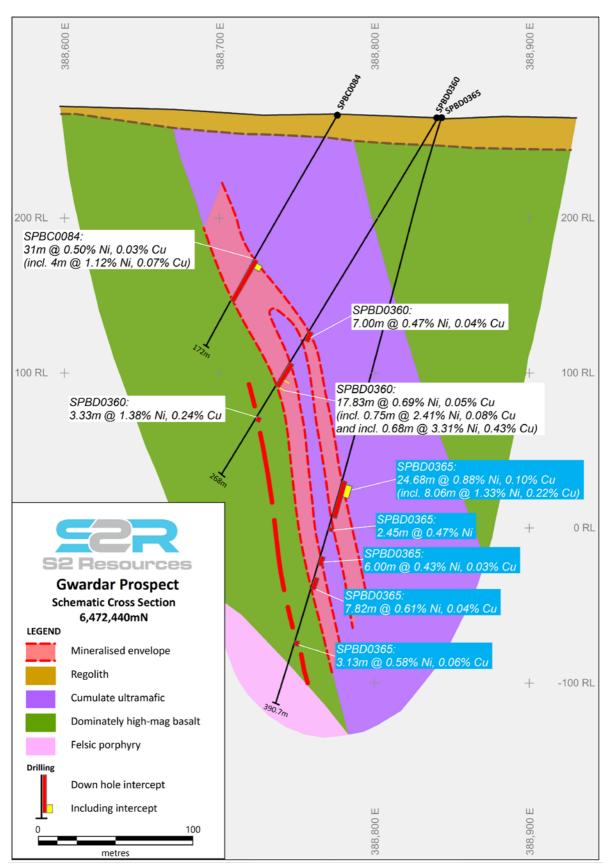


Figure 5: Cross section of Gwardar prospect, showing intercepts in hole SPBD0365 and multiplicity of lava flows.



#### Fraser Range, Western Australia (S2 100%)

The Company has been successful in the DMIRS ballot system for three exploration license applications in the Fraser Range, located 40 to 80 kilometres to the northeast of the Nova-Bollinger nickel-copper mine (which S2's predecessor, Sirius Resources, discovered in 2012) and 80 to 120 kilometres southwest of Legend Mining's recent discovery at Mawson.

During the quarter, two of three large Exploration License Applications were granted and exploration commenced at the Fraser Range project. These tenements are situated along the axis of the Fraser Range nickel province originally identified by the S2 team in their previous company, Sirius Resources. As such, they are highly prospective for magmatic nickel sulphides, being located between the Nova Nickel Mine and Mark Creasy's Silver Knight nickel-copper discovery to the southwest, Legend Mining's recent Mawson discovery (refer to LEG ASX release dated 31 March 2020) to the northeast. The new S2 tenure is entirely surrounded by IGO, Mark Creasy and Legend Mining (see Figure 6).

The granted tenements are situated in an area of extensive transported cover, obscuring the underlying prospective geology, and a review of limited historical exploration indicates there has been very little effective prior exploration within the company's landholdings.

Geological and geophysical mapping and a passive seismic survey commenced subsequent to the end of the quarter, with the aim of determining the depth of transported cover and location of palaeochannels prior to planning reconnaissance moving loop electromagnetic (MLEM) surveys and aircore drilling over areas considered prospective for Nova-style nickel and palaeochannel-hosted gold.

## West Coast nickel reconnaissance, Western Australia (S2 100%)

The company has recently applied for a number of exploration licenses along the western margin of the Yilgarn craton in Western Australia, including:

- Two exploration licenses, covering an area of approximately 350 square kilometres at the **Three Springs** project, located approximately 250 kilometres north of Perth, and
- Three exploration licenses, covering an area of approximately 690 square kilometres at the West Murchison project, located approximately 500 kilometres north of Perth

These areas were identified as having prospectivity for magmatic nickel-copper-cobalt-PGE style mineralisation on the basis of the interpreted presence of unexplored mafic-ultramafic intrusions within predominantly granite-gneiss terrain along the western edge of the Archaean Yilgarn Craton (see Figure 7).

Regional government (GSWA) mapping has identified mafic-ultramafic intrusive rocks, and regional aeromagnetics indicates these intrusives may be considerably more extensive than previously thought due to the bodies being buried beneath younger transported cover. Chalice Gold's recent Julimar nickel-copper-PGE discovery further south attests to the potential of this margin.

A review of open file exploration reports indicates there has been no meaningful historical exploration for nickel sulphide mineralisation within the project areas.



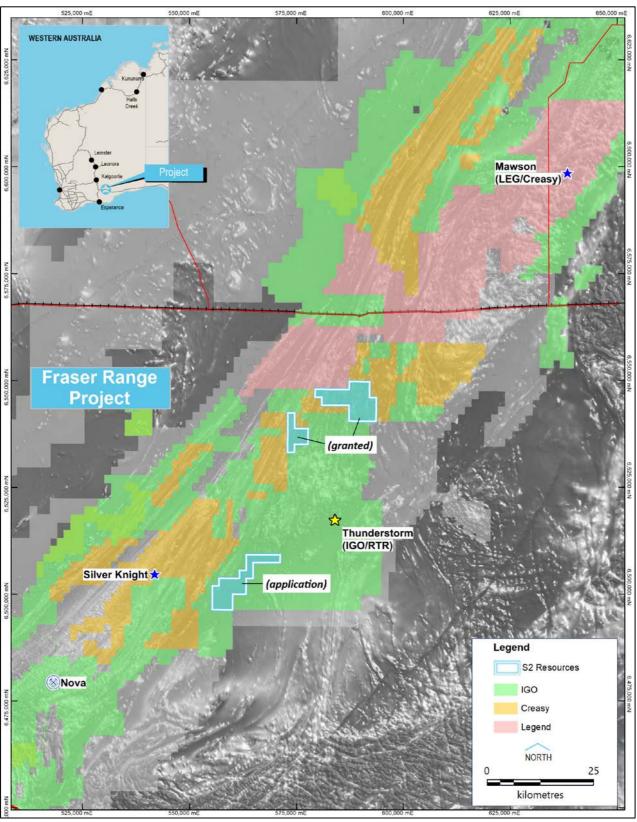


Figure 6: Fraser Range showing S2 and competitor tenure and known mines/prospects over aeromagnetics.



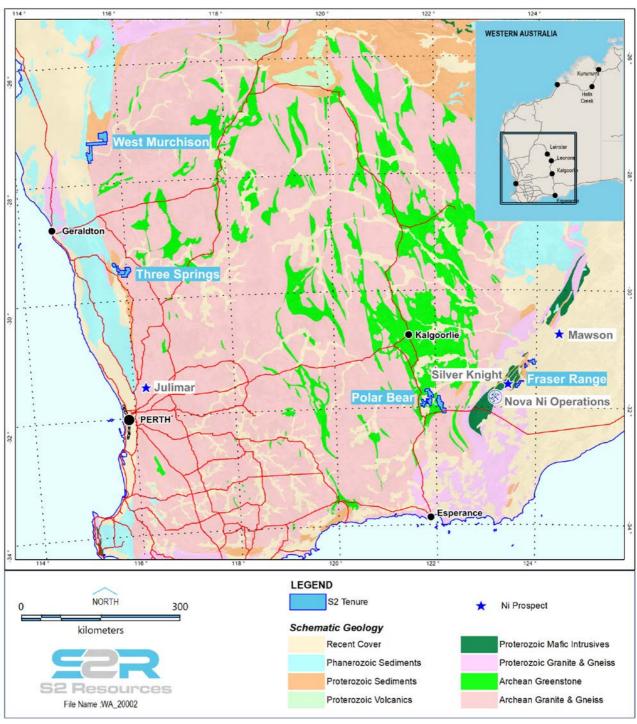


Figure 7: Location of S2's Western Australia's exploration projects over simplified regional geology. The new tenement applications at Three Springs and West Murchison are situated along the western margin of the Archaean Yilgarn craton (as is Chalice Gold's recent Julimar nickel-copper-PGE discovery), whereas its Fraser Range tenements are situated along the southeastern margin of the Yilgarn Craton.



## Ecru, Nevada, USA (S2 earning 70%)

The Company withdrew from its earn-in on the Ecru project during the quarter.

This announcement has been provided to the ASX under the authorization of Mark Bennett, Managing Director & CEO.

For further information, please contact:

Mark Bennett
Managing Director & CEO
+61 8 6166 0240

Anna Neuling
Executive Director & Company Secretary
+61 8 6166 0240

Past Exploration results reported in this announcement have been previously prepared and disclosed by S2 Resources Ltd in accordance with JORC 2012. The Company confirms that it is not aware of any new information or data that materially affects the information included in these market announcements. The Company confirms that the form and content in which the Competent Person's findings are presented here have not been materially modified from the original market announcement. Refer to www.s2resources.com.au for details on past exploration results.

Draiast	Tonoment ID	Registered Holder	Location	Ownership %	Status			
Project Tenement ID Registered Holder Location Ownership % Status								
Western Australia Fraser Range E28/2791 Southern Star Pty Ltd Fraser Range 100% Granted								
Fraser Range Fraser Range	E28/2792	Southern Star Pty Ltd Southern Star Pty Ltd	Fraser Range Fraser Range	100%	Granted			
Fraser Range	E28/2793	Southern Star Pty Ltd	Fraser Range	100% when granted – subject to ballot				
	E28/2794	Southern Star Pty Ltd	_	,	Application			
Fraser Range		,	Fraser Range	100% when granted – subject to ballot	Application			
Polar Bear	E15/1298	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	E15/1461	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	E15/1541	Polar Metals Pty Ltd	Lake Cowan		Granted			
Polar Bear Polar Bear	E63/1142	Polar Metals Pty Ltd	Lake Cowan Lake Cowan	100% nickel	Granted			
	E63/1712	Polar Metals Pty Ltd		100% nickel	Granted			
Polar Bear	E63/1725	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	E63/1756	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	E63/1757	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	M15/651	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	M15/710	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	M15/1814	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	M63/230	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	M63/255	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	M63/269	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	M63/279	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	M63/662	Polar Metals Pty Ltd	Lake Cowan	100% nickel when granted	Application			
Polar Bear	P15/5638	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	P15/5639	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	P15/5640	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	P15/5958	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	P15/5959	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	P63/1587	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	P63/1588	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	P63/1589	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	P63/1590	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	P63/1591	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	P63/1592	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	P63/1593	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Polar Bear	P63/1594	Polar Metals Pty Ltd	Lake Cowan	100% nickel	Granted			
Eundynie JV	E15/1458	Polar Metals Pty Ltd / Shumwari Pty Ltd	Lake Cowan	80% nickel	Granted			
Eundynie JV	E15/1459	Polar Metals Pty Ltd / Shumwari Pty Ltd	Lake Cowan	80% nickel	Granted			
Eundynie JV	E15/1464	Polar Metals Pty Ltd / Shumwari Pty Ltd	Lake Cowan	80% nickel	Granted			
Eundynie JV	E63/1726	Polar Metals Pty Ltd / Shumwari Pty Ltd	Lake Cowan	80% nickel	Granted			
Eundynie JV	E63/1727	Polar Metals Pty Ltd / Shumwari Pty Ltd	Lake Cowan	80% nickel	Granted			
Eundynie JV	E63/1738	Polar Metals Pty Ltd / Shumwari Pty Ltd	Lake Cowan	80% nickel	Granted			
Norcott	E15/1487	Polar Metals Pty Ltd	Mt Norcott	100% nickel	Granted			
Norcott	E63/1728	Polar Metals Pty Ltd	Mt Norcott	100% nickel	Granted			
Three Springs	E70/5380	Southern Star Pty Ltd	Three Springs	100% when granted	Application			
Three Springs	E70/5381	Southern Star Pty Ltd	Three Springs	100% when granted	Application			
West Murchison	E70/5382	Southern Star Pty Ltd	West Murchison	100% when granted	Application			
West Murchison	E09/2390	Southern Star Pty Ltd	West Murchison	100% when granted	Application			
West Murchison	E09/2391	Southern Star Pty Ltd	West Murchison	100% when granted	Application			
Finland								
Exploration Licenses								
Central Lapland	Kerjonen ML2015:0061	Sakumpu Exploration Oy	Central Lapland	100%	Granted			
Central Lapland	Keulakkopää ML2016:0058	Sakumpu Exploration Oy	Central Lapland	100%	Granted			
Central Lapland	Paana Central ML2018:0081	Sakumpu Exploration Oy	Central Lapland	100%	Granted			
Central Lapland	Aakenusvaara ML2018:0105	Sakumpu Exploration Oy	Central Lapland	100%	Granted			
Central Lapland	Paana W2 ML2018:0107	Sakumpu Exploration Oy	Central Lapland	100%	Granted			
Central Lapland	Palvanen ML2016:0062	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application			
Central Lapland	Putaanperä ML2016:0063	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application			
Central Lapland	Sikavaara E ML2016:0056	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application			
Central Lapland	Paana East ML2017:0029	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application			
Central Lapland	Paana West ML2017:0028	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application			
Central Lapland	Selkä ML2017:0037	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application			
Central Lapland	Mesi ML2017:0034	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application			
Central Lapland	Ruopas ML2017:0040	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application			
Central Lapland	Nuttio ML2017:0041	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application			
1	•	•	1	ı	1			

Project	Tenement ID	Registered Holder	Location	Ownership %	Status
Central Lapland	Home ML2017:0042	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application
Central Lapland	Hanhijarvi ML2017:0112	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application
Central Lapland	Pikkulaki ML2017:0111	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application
Central Lapland	Ruopas 1 ML2018:0065	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application
Central Lapland	Home 1 ML2018:0109	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application
Central Lapland	Pahasvuoma ML2019:0085	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application
Central Lapland	Rova ML2019:0086	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application
Central Lapland	Sikavaara W ML2019:0107	Sakumpu Exploration Oy	Central Lapland	100% when granted	Application